In Lieu of Form 3160 (June 1990)

Approved by_

Conditions of approval, if any

UNITED STATES DEPARTMENT OF INTERIOR **BUREAU OF LAND MANAGEMENT**

	FORM APPRO	OVED
RECI	FORM APPRO Budget Bureau No Expires: March 3	1004-0135 31, 1993

SUMDRY	NOTICE	ΔND	REPORTS	ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" 6 TO DRILL" for permit for such proposals

Lease Designation and Serial No.

:-armingto:	16 ield Offlice Indian, Allottee or Tribe Name
⊃ureau of Lar	d Managemen

	Juleau of Lan di Manademen.				
	SUBMIT IN TRIPLICATE	7 If Unit or CA, Agreement Designati Rosa Unit			
1.	Type of Well Oil Well Gas Well X Other	8 Well Name and No. Rosa Unit 145D			
2.	Name of Operator WILLIAMS PRODUCTION COMPANY	9 API Well No 30-045-35002			
3.	Address and Telephone No PO Box 640 Aztec, NM 87410-0640 634-4208	10 Field and Pool, or Exploratory Area BLANCO MV/BASIN DK/BASIN			
4.	Location of Well (Footage, Sec., T, R, M, or Survey Description) SURF: 610' FNL & 610' FEL BHL: 1768' FNL & 392' FEL SEC 16 31N 6W	County or Parish, State San Juan, New Mexico			

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	Т	PE OF ACTION
Notice of Intent x Subsequent Report Final Abandonment	Abandonment Recompletion Plugging Back Casing Repair Altering Casing X Other <u>Reallocation</u>	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water (Note Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is 13 directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)*

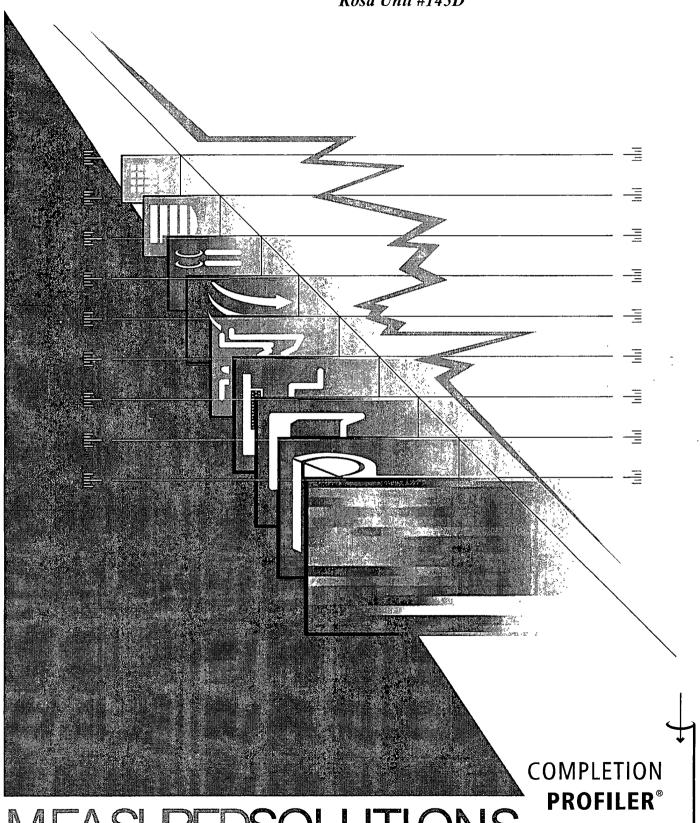
Williams E&P has run Protechnic's Completion profiler tool for allocation purposes on the Rosa Unit #145D. Based on the results obtained, Williams proposes the following allocation:

	Mesaverde	63%	31	1 Mcf/d	(3th a Total
	Mancos	22%	11	1 Mcf/d	RECEIVED
	Dakota	15%	7.	3 Mcf/d	15 JUN 2019 7
	Total	100%	49	5 Mcf/d	Via IIII Coup Co I
					ST. CONS DIV. DIST. 3
14.	I hereby certify that the foregoing	ng is true and correct			-32426-
	Signed Larry Higgans	Tiggin	Title <u>Drilling SUPR</u> Date <u>5/</u>	31/11 .	
	(This space for Federal or State	office use)			
	0 - 1	1. - 11-	C a a		

Title 18 U S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Title

Williams Production Company Rosa Unit #145D



MEASUREDSOLUTIONS





Well Name Rosa Unit #145D

Field Blanco Mesaverde/Basin Dakota

Location San Juan County, New Mexico

Company | Williams Production Company

Customer Name | Michael Andrews

Date of Survey | May 18, 2011

Date of Analysis | May 23, 2011

Logging Engineer | Loren Healy

Analyst | Mark Warren

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful misconduct on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.





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Survey Objectives

- Identify the source of water production.
- Identify gas producing intervals.
- Quantitative production profile.

Logging Procedures

Date	Time	Comment
5-18	6:15	Arrive on location
5-18	5:30	Gauge Run Start
5-18	6:15	Gauge Run Stop
5-18	6:41	Program Completion Profile String
5-18	6:48	Start GIH pass
5-18	7:13	Stop GIH pass
5-18	7:19	Start logging passes
5-18	9:59	Stop logging passes
5-18	10:06	Start out of well pass
5-18	10:26	Stop out of well pass
5-18	10:32	Start download
5-18	10:50	Stop download
5-18	11:00	Rig Down

Interval Logged: [From 5,460 to 8,192 ft.]

60 ft/min 90 ft/min





Well Information

Casing: 4.50" 11.6 lb/ft surface to 8,261 ft PBTD: 8,257 ft

Tubing: 2.38" 4.7 lb/ft surface to 5,378 ft

Perforations: 5,590; 5,592; 5,594; 5,596; 5,598; 5,600; 5,602; 5,604; 5,606; 5,652;

5,654; 5,656; 5,658; 5,660; 5,662; 5,664; 5,666; 5,668; 5,670; 5,672; 5,674; 5,676; 5,678; 5,680; 5,682; 5,684; 5,686; 5,688; 5,690; 5,692; 5,694; 5,696; 5,698; 5,700; 5,702; 5,704; 5,706; 5,708; 5,710; 5,746; 5,748; 5,756; 5,758; 5,760; 5,762; 5,774; 5,776; 5,790; 5,792; 5,794;

5,796; 5,798; 5,818; 5,820; 5,822 ft (Cliffhouse/Menefee)

5,854; 5,858; 5,862; 5,866; 5,870; 5,882; 5,886; 5,890; 5,894; 5,897; 5,900; 5,904; 5,912; 5,916; 5,920; 5,924; 5,928; 5,932; 5,936; 5,940; 5,944; 5,948; 5,952; 5,956; 5,960; 5,968; 5,970; 5,972; 5,975; 5,978;

5,980; 5,987; 5,989; 6,013; 6,015; 6,031; 6,033; 6,047; 6,049; 6,096;

6,098; 6,100; 6,102; 6,125; 6,127; 6,170; 6,172; 6,174 ft

(Point Lookout)

6,990; 7,000; 7,010; 7,020; 7,030; 7,040; 7,050; 7,060; 7,070; 7,080; 7,090; 7,100; 7,110; 7,120; 7,130; 7,140; 7,150; 7,160; 7,170; 7,180;

7,190; 7,200; 7,210; 7,220; 7,230 ft (Upper Mancos)

7,334; 7,340; 7,347; 7,354; 7,362; 7,370; 7,376; 7,384; 7,390; 7,397; 7,403; 7,412; 7,420; 7,430; 7,436; 7,444; 7,453; 7,458; 7,464; 7,470;

 $7,403;\ 7,412;\ 7,420;\ 7,430;\ 7,436;\ 7,444;\ 7,453;\ 7,458;\ 7,464;\ 7,470;$

7,477; 7,486 ft (Lower Mancos)

8,098; 8,101; 8,104; 8,107; 8,110; 8,139; 8,142; 8,145; 8,148; 8,151;

8,154; 8,157; 8,160; 8,163; 8,166; 8,169; 8,180; 8,183; 8,186; 8,209;

8,212; 8,232; 8,235 ft (Dakota)

Flowing tubing pressure at the time of logging: 60 psi

Daily average surface production reported at the time of logging:

gas: 550 Mscf/d water: <1 bpd





Tool String

The 1 11/16" Completion Profiler string comprised the following sensors:

Battery housing; RS-232/CCL; Memory/CPU; Gamma Ray; Pressure/Temperature Combo; Gamma Ray; Centralizer; Induction Collar Locator; Fluid Density; Centralizer; Spinner Flowmeter.





Results

The following table summarizes the production from each frac interval.

				GAS / WATER PR	ODUCTION P	ROFILE		
				Flow Rates F	Reported at STF	•		
Zone	Inte	rvals	Q-Gas	Qp-Gas	Percent of	Q-Water	Qp-Water	Percent of
	feet		MCFD	MCFD	Total	BFPD	BFPD	Total
Surface	to	5590	495 Mcf/d		100 %	0 bpd		
	, 1 ¹	, C	 liffhouse/Menefee		39.%	(a) (a) (b)	, 2000 C 1 2 20 20 1	Ò%
5590	to	5890	495 Mcf/d	195 Mcf/d		0 bpd	0 bpd	
A 146. 7 gr		यक चर्च	Point Lookout	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24.%	1. (1. (1. (1. (1. (1. (1. (1. (1. (1. (Mary Comment	0 %
5894	to	6174	301 Mcf/d	116 Mcf/d		0 bpd	0 bpd	
			Upper Mancos		16 %	1 , 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	W MA CO 17 7 18	0 %
6990	to	7230	184 Mcf/d	81 Mcf/d		0 bpd	0 bpd	
7.7%	**	• 1	Lower Mancos	L	6 %	3 1 S	1. 37	0 %
7334	to	7486	103 Mcf/d	30 Mcf/d		0 bpd	0 bpd	
	· ·		Dakota		15 %	× * ·		0`%
8098	to	8186	73 Mcf/d	73 Mcf/d		0 bpd	0 bpd	
Log In	iterva	ıl, No Fl	ow Inside Pipe	,	0 %	· ·	, ,	0 %
8186	to	8192	0 Mcf/d		0 %	0 bpd		